

REMARKS

Reconsideration of the application in light of the following remarks is respectfully requested.

Status of the Claims

Claims 10-41 are withdrawn without prejudice or disclaimer as being drawn to nonelected inventions. Claims 1, 3 and 4 have been amended. Claim 2 has been canceled without prejudice or disclaimer. No new matter has been added. Claims 1 and 3-9 are pending after entry of this amendment.

Applicants observe that the original, as-filed claims number two separate claims as “claim 23.” This observation is moot for the present application, because both of these claims numbered as “claim 23” have been withdrawn. This problem will be corrected in any future divisional application that includes these withdrawn claims.

Claim Objections

Claim 4 was objected under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicants have amended claim 4 to recite the limitation in the form of a further limitation on the step of encoding. Applicants request reconsideration and withdrawal of the objection to claim 4.

Claim Rejections - 35 USC § 112

Claims 1-9 were rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps. The Examiner contends that there is no limitation in the form of a step that would achieve the intended outcome, such omission amounting to a gap between the steps. For the purposes of advancing prosecution, the Examiner incorporated the limitation of claim 2 into claim 1.

Applicants have moved the subject matter of claim 2 into claim 1, and canceled claim 2. Claims 3 and 4, which were dependent upon claim 2, have been made dependent upon claim 1. Applicants have separately amended claim 1 as described below to overcome the obviousness rejections of claim 1. This rejection is now moot as applied to claim 2. Applicants request reconsideration and withdrawal of the rejection to claims 1 and 3-9 under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 103

Claims 1-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,724,327 (hereafter “Pope”) in view of U.S. Patent No. 6,437,711 (hereafter “Nieminen”). Claim 2 has been canceled for reasons discussed above, therefore this rejection is moot as applied to claim 2.

The Examiner contends that Pope teaches encoding information into one or more codewords such that the last codeword has a lower code rate than the first codeword, but not identifying a length of information. The Examiner further contends that Nieminen discloses identifying lengths, and that it would be obvious to one of ordinary skill in the art at the time the

invention was made to combine Pope and Nieminen because the length is necessary information to encode variable-length data.

Information is coded in the present application by selecting codewords that are balanced in order to provide a final codeword having the same or similar codeword error probability as previous codewords (Specification, par. [0043]). For instance, the codewords may be “full length (D) unshortened codewords” up to – but not including – the last one or two codewords, with the last one or two codewords allowed to be shorter than prior codewords (Specification, par. [0036]-[0040]; and FIG. 5). In contrast, Pope, col. 4, lines 31-34, cited by the Examiner, teaches a method wherein information is coded with each codeword being shorter than the previous codeword, e.g., 60% of the previous codeword (FIG. 2; and col. 3, line 55 – col. 4, line 6). Although Pope discloses another embodiment of encoding information using codewords of same or similar sizes (FIG. 4), Pope does not balance the codeword error rate among all codewords – rather, Pope discloses that the coding of the last codeword is selected for reason of lower latency (col. 4, line 60 – col. 5, line 15).

Applicants have amended claim 1 to recite these features discussed above that distinguish over Pope. Applicants have further amended claim 1 to clarify that being able to achieve a similar codeword error probability upon decoding is part of the selection method for setting the code rates, rather than merely an intended outcome of the method. Applicants submit that neither Pope nor Nieminen, either alone or in combination, discloses or suggests the elements of amended claim 1. Claims 3-7 depend upon base independent claim 1, and should be allowable by reason of their dependency upon an allowable base claim. Applicants request reconsideration and withdrawal of the rejection of claims 1 and 3-7 over Pope in view of Nieminen.

Claims 8 and 9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Pope in view of Nieminen, and in further view of U.S. Patent No. 6,757,337 (hereafter “Zhuang”). The Examiner has cited Zhuang as teaching use of an antenna or OFDM. Applicants submit that no combination of Pope, Nieminen or Zhuang, either alone or in combination, discloses or suggests the elements of amended claim 1. Claims 8 and 9 depend upon base independent claim 1, and should be allowable by reason of their dependency upon an allowable base claim. Applicants request reconsideration and withdrawal of the rejection of claims 8 and 9 over Pope in view of Nieminen, and in further view of Zhuang.

CONCLUSION

Each and every point raised in the Office Action mailed July 17, 2008 has been addressed on the basis of the above remarks. In view of the foregoing it is believed that claims 1-9 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

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